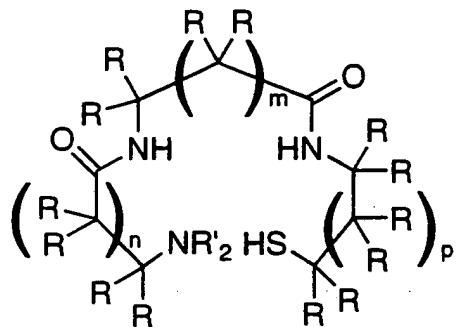


PROPOSED AMENDED CLAIMS

2. (currently amended) A reagent comprising a targeting moiety covalently linked via a bivalent linking group to a metal chelator having a in which the metal chelator and the bivalent linking together have the formula:



wherein:

n, m and p are each independently 0 or 1,

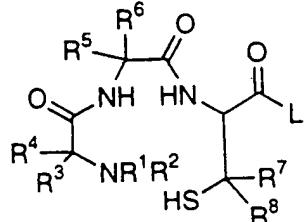
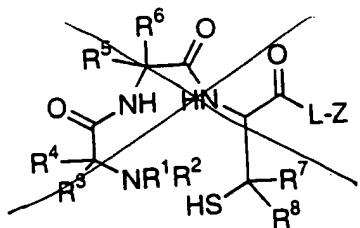
each R' is independently H, lower alkyl, hydroxyalkyl (C₂-C₄), or alkoxyalkyl (C₂-C₄);

each R is independently H or R'', where R'' is substituted or unsubstituted lower alkyl or phenyl not comprising a thiol group;

one R or R' is L, wherein when an R' is L, -NR'₂ is an amine; and

L is a the bivalent linking group linking the chelator to the targeting moiety.

3. (currently amended) A reagent according to claim 2, wherein the metal chelator has a and the bivalent linking group together have the formula:



wherein:

R^1 and R^2 are each independently H, lower alkyl, hydroxyalkyl C_2-C_4) or alkoxyalkyl (C_2-C_4);
 R^3 , R^4 , R^5 and R^6 are independently H, substituted or unsubstituted lower alkyl or phenyl not comprising a thiol group; and
 R^7 and R^8 are each independently H, lower alkyl, lower hydroxyalkyl or lower alkoxyalkyl; alkoxyalkyl.

L is a bivalent linking moiety; and

Z is a targeting moiety.

7. (currently amended) A reagent according to claim 2, wherein the metal chelator is selected from the group consisting of:

(amino acid)¹-(amino acid)²-cysteine-,

(amino acid)¹-(amino acid)²-isocysteine-,
(amino acid)¹-(amino acid)²-homocysteine-,
(amino acid)¹-(amino acid)²-penicillamine-,
(amino acid)¹-(amino acid)²-2-mercaptopethylamine-,
(amino acid)¹-(amino acid)²-2-mercaptopropylamine-,
(amino acid)¹-(amino acid)²-2-mercaptopropylamine-,
(amino acid)¹-(amino acid)²-3-mercaptopropylamine-,

wherein:

(amino acid) is a primary α - or β -amino acid not comprising a thiol, and
wherein the chelator is attached to a targeting moiety *via* a covalent bond with a carboxyl
terminus of the chelator or *via* a side chain on one (amino acid).

10. (currently amended) A reagent according to claim 2 3, wherein the
~~chelating group~~ metal chelator has a formula selected from the group consisting of:

Gly-Gly-Cys- and

Arg-Gly-Cys-

-(ϵ -Lys)-Gly-Cys

-(δ -Orn)-Gly-Cys-

-(γ -Dab)-Gly-Cys-

and

-(β -Dap)-Gly-Cys-